

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1, 2, 3, and 16 without prejudice, add new claim 28, and amend claims 20 and 26 as follows:

Claims 1 to 4. (canceled)

5. (withdrawn) A read-and-write device for optical data transfer, said read-and-write device comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) that is greater than or equal to 35 and a density (ρ) that is less than or equal to 4.5 g/cm^3 .

6. (withdrawn) The read-and-write device with a movable read-write head and at least one optical element, said at least one optical element comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) greater than or equal to 35 and a density (ρ) is less than or equal to 4.5 g/cm^3 .

Claims 7 to 16. (canceled)

17. (previously presented) An optical element for an optical data transfer device said optical element comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) greater than or equal to 35

and a density (ρ) that is less than or equal to 4.5 g/cm^3 , wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La_2O_3	30 to 45
B_2O_3	30 to 40
Al_2O_3	0 to 5
PbO	0.1 to 5
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10
Rb_2O	0 to 10
Cs_2O	0 to 10
MgO	0 to 8
CaO	0 to 8
SrO	0 to 8
BaO	0 to 8
ZnO	1 to 10
TiO_2	0 to 5
ZrO_2	1 to 10
Y_2O_3	1 to 8
Yb_2O_3	0.1 to 2
Gd_2O_3	0.1 to 5
Nb_2O_5	0.1 to 10

with $\text{MgO}+\text{CaO}+\text{SrO}+\text{BaO}$ 0 to 10

with $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$ 0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO_4^{2-} , Cl^- , Sb_2O_3 , As_2O_3 , SnO_2 and CeO_2 .

18. (previously presented) An optical element for an optical data transfer device said optical element comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) greater than or equal to 35 and a density (ρ) that is less than or equal to 4.5 g/cm^3 , wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La_2O_3	35 to 50
B_2O_3	30 to 40
Al_2O_3	0 to 5
SiO_2	0 to 8
GeO_2	0.5 to 15
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10
Rb_2O	0 to 10

Cs ₂ O	0 to 10
SrO	0 to 2
BaO	0.1 to 7
ZnO	0 to 5
ZrO ₂	0.1 to 8
Y ₂ O ₃	0.1 to 6
Gd ₂ O ₃	0 to 5
Nb ₂ O ₅	1 to 10
With Li ₂ O+Na ₂ O+K ₂ O+Rb ₂ O+Cs ₂ O	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO₄⁻², Cl⁻, Sb₂O₃, As₂O₃, SnO₂ and CeO₂.

19. (previously presented) An optical element for an optical data transfer device said optical element comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) greater than or equal to 35 and a density (ρ) that is less than or equal to 4.5 g/cm³, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La ₂ O ₃	40 to 55
B ₂ O ₃	22 to 32

Al_2O_3	0 to 5
SiO_2	1 to 8
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10
Rb_2O	0 to 10
Cs_2O	0 to 10
SrO	0 to 8
BaO	0 to 2
ZnO	0.5 to 6
TiO_2	0 to 1.0
ZrO_2	2 to 10
Y_2O_3	3 to 11
With $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO_4^{2-} , Cl^- , Sb_2O_3 , As_2O_3 , SnO_2 and CeO_2 .

20. (currently amended). An optical element for an optical data transfer device said optical element comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) greater than or equal to 35 and a density (ρ) that is less than or equal to 4.5 g/cm^3 , wherein said optical

glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which comprises:

La_2O_3	10 to 16
B_2O_3	1 to 8
Al_2O_3	0 to 3
SiO_2	20 to 30
Li_2O	0 to $\frac{10}{1.5}$
Na_2O	0 to $\frac{10}{8}$
K_2O	0 to $\frac{10}{8}$
Rb_2O	0 to 10
Cs_2O	0 to 10
SrO	0 to 8
BaO	0 to 8
ZnO	1 to 8
ZrO_2	0.5 to 6
TiO_2	3 to 11
Nb_2O_5	10 to 18
With $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO_4^{2-} , Cl^- , Sb_2O_3 , As_2O_3 , SnO_2 and CeO_2 .

21. (withdrawn) The read-and-write device as defined in claim 5 or 6, wherein said density (ρ) that is less than or equal to 4.3 g/cm^3 .

22. (withdrawn) The read-and-write device as defined in claim 5 or 6, wherein a sample of said optical glass with a 25 mm thickness has a spectral transmission purity degree of at least percent 70.8 percent at a wavelength of 400 nm and a partial dispersion of no more than 0.567 in the blue spectral region.

23. (withdrawn) The read-and-write device as defined in claim 5 or 6, wherein said optical glass is a lanthanate borate glass, said lanthanate borate glass necessarily comprises La_2O_3 , B_2O_3 and ZrO_2 and said lanthanate borate glass includes either Y_2O_3 or Nb_2O_5 .

24. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La_2O_3	30 to 45
B_2O_3	30 to 40
Al_2O_3	0 to 5
PbO	0.1 to 5
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10

Rb ₂ O	0 to 10
Cs ₂ O	0 to 10
MgO	0 to 8
CaO	0 to 8
SrO	0 to 8
BaO	0 to 8
ZnO	1 to 10
TiO ₂	0 to 5
ZrO ₂	1 to 10
Y ₂ O ₃	1 to 8
Yb ₂ O ₃	0.1 to 2
Gd ₂ O ₃	0.1 to 5
Nb ₂ O ₅	0.1 to 10
with MgO+CaO+SrO+BaO	0 to 10
with Li ₂ O+Na ₂ O+K ₂ O+Rb ₂ O+Cs ₂ O	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO₄⁻², Cl⁻, Sb₂O₃, As₂O₃, SnO₂ and CeO₂.

25. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La_2O_3	35 to 50
B_2O_3	30 to 40
Al_2O_3	0 to 5
SiO_2	0 to 8
GeO_2	0.5 to 15
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10
Rb_2O	0 to 10
Cs_2O	0 to 10
SrO	0 to 2
BaO	0.1 to 7
ZnO	0 to 5
ZrO_2	0.1 to 8
Y_2O_3	0.1 to 6
Gd_2O_3	0 to 5
Nb_2O_5	1 to 10
With $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO_4^{2-} , Cl^- , Sb_2O_3 , As_2O_3 , SnO_2 and CeO_2 .

26. (withdrawn – currently amended) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La_2O_3	40 to 55
B_2O_3	22 to 32
Al_2O_3	0 to 5
SiO_2	1 to 8
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10
Rb_2O	0 to 10
Cs_2O	0 to 10
SrO	0 to 8
BaO	0 to 2
ZnO	0.5 to 6
TiO_2	0 to <u>[[3]] 1.0</u>
ZrO_2	2 to 10
Y_2O_3	3 to 11
With $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO_4^{2-} , Cl^- , Sb_2O_3 , As_2O_3 , SnO_2 and CeO_2 .

27. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La_2O_3	10 to 16
B_2O_3	1 to 8
Al_2O_3	0 to 3
SiO_2	20 to 30
Li_2O	0 to 10
Na_2O	0 to 10
K_2O	0 to 10
Rb_2O	0 to 10
Cs_2O	0 to 10
SrO	0 to 8
BaO	0 to 8
ZnO	1 to 8
ZrO_2	0.5 to 6
TiO_2	3 to 11
Nb_2O_5	10 to 18
With $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO_4^{2-} , Cl^- ,

Sb_2O_3 , As_2O_3 , SnO_2 and CeO_2 .

28. (new) An optical element for an optical data transfer device said optical element comprising an optical glass with an index of refraction (n_d) greater than or equal to 1.70, an Abbé number (v_d) greater than or equal to 35 and a density (ρ) that is less than or equal to 4.5 g/cm^3 , wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which comprises:

La_2O_3	10 to 16
B_2O_3	1 to 8
Al_2O_3	0 to 3
SiO_2	20 to 30
Li_2O	0 to 1.5
Na_2O	0 to 8
K_2O	0 to 8
Rb_2O	0 to 10
Cs_2O	0 to 10
CaO	17.8 to 30
SrO	0 to 8
BaO	0 to 8
ZnO	1 to 8
ZrO_2	0.5 to 6

TiO ₂	3 to 11
Nb ₂ O ₅	10 to 18
With Li ₂ O+Na ₂ O+K ₂ O+Rb ₂ O+Cs ₂ O	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO₄⁻², Cl⁻, Sb₂O₃, As₂O₃, SnO₂ and CeO₂.